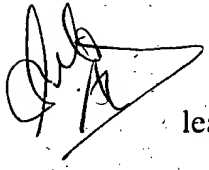


## CLAIMS:



1. A process for preparing a lubricating oil basestock containing at least about 90% saturates which comprises:

(a) passing a feedstock to a hydrotreating zone containing at least one hydrotreating reactor containing a hydrotreating catalyst;

(b) hydrotreating the feedstock in the presence of the hydrotreating catalyst under hydrotreating conditions wherein the hydrotreating catalyst is a bulk metal catalyst comprising non-noble Group VIII metal molybdate in which at least a portion but less than all of molybdenum is replaced by tungsten to produce a hydrotreated feedstock; and

(c) fractionating the hydrotreated feedstock.

2. A process for preparing a lubricating oil basestock containing at least about 90% saturates which comprises:

(a) passing a feedstock to a first hydrotreating zone containing at least one hydrotreating reactor containing a first non-bulk metal hydrotreating catalyst;

(b) hydrotreating the feedstock in the presence of the first hydrotreating catalyst under first hydrotreating conditions wherein the first hydrotreating catalyst comprises at least one Group VIB and at least one non-noble Group VIII metal on a refractory oxide support to produce a first hydrotreated feedstock;

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(c) passing at least a portion of the first hydrotreated feedstock to a second hydrotreating zone containing at least one hydrotreating reactor containing a second hydrotreating catalyst;

(d) hydrotreating the first hydrotreated feedstock in the second hydrotreating zone under second hydrotreating conditions wherein the second hydrotreating catalyst in said second hydrotreating zone is a bulk metal catalyst comprising non-noble Group VIII metal molybdate in which at least a portion but less than all of molybdenum is replaced by tungsten to produce a second hydrotreated feedstock;

(e) fractionating the second hydrotreated feedstock.→

3. A process for preparing a petroleum oil containing at least about 90% saturates which comprises:

(a) passing a feedstock to a hydrotreating zone containing at least one hydrotreating reactor containing a hydrotreating catalyst;

(b) hydrotreating the feedstock in the presence of the hydrotreating catalyst under hydrotreating conditions wherein the hydrotreating catalyst is a bulk metal catalyst comprising non-noble Group VIII metal molybdate in which at least a portion but less than all of molybdenum is replaced by tungsten to produce a hydrotreated feedstock;

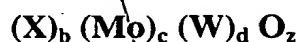
(c) fractionating the hydrotreated feedstock to produce a first basestock;

(d) passing the first basestock to a hydrogenation zone containing at least one hydrogenation reactor containing a hydrogenation catalyst;

(e) hydrogenating the first basestock in the presence of the hydrogenation catalyst under hydrogenation conditions wherein the hydrogenation catalyst comprises at least one Group VIII metal; and

(f) fractionating the hydrogenated product from step (e) to produce a petroleum oil containing at least about 90% saturates.

4. The process of claims 1, 2 or 3 wherein the bulk metal catalyst is represented by the formula:



wherein X is non-noble Group VIII metal, the molar ratio of b: (c+d) is 0.5/1 to 3/1, the molar ratio of c:d is >0.01/1, and  $z = [2b + 6(c + d)]/2$ .

5. The process of claim 4 wherein the molar ratio of b:(c+d) is 0.75/1 to 1.5/1.

6. The process of claim 5 wherein the molar ratio of b:(c+d) is 0.75/1 to 1.25/1.

7. The process of claim 4 wherein the molar ratio of c:d is >0.1/1.

8. The process of claim 7 wherein the molar ratio of c:d is 1/10 to 10/1.

9. The process of claim 8 wherein the molar ratio of c:d is 1/3 to 3/1.

10. The process of claim 3 wherein the hydrogenation catalyst further contains at least one Group VIB metal.
11. The process of claim 3 wherein the Group VIII metal is a non-noble metal.
12. The process of claim 11 wherein the non-noble metal is nickel.
13. *OK* The process of claims 1 or 3 wherein the hydrotreating conditions comprise temperatures of from 250 to 400 °C, hydrogen pressures of from 500 to 3500 psig (3549 to 24234 kPa), liquid hourly space velocities of from 0.1 to 5.0 and hydrogen treat gas rates of from 500 to 5000 scf/B (89 to 890 m<sup>3</sup>/m<sup>3</sup>).
14. *OK* The process of claim 2 wherein the first hydrotreating conditions in the first hydrotreating zone comprise temperatures of from 250 to 400 °C, hydrogen pressures of from 500 to 3500 psig (3549 to 24234 kPa), liquid hourly space velocities of from 0.1 to 5.0 and hydrogen treat gas rates of from 500 to 5000 scf/B (89 to 890 m<sup>3</sup>/m<sup>3</sup>), and the second hydrotreating conditions in the second hydrotreating zone comprise temperatures of from 250 to 400 °C, hydrogen pressures of from 500 to 5000 psig (3549 to 24234 kPa), liquid hourly space velocities of from 0.1 to 5.0 and hydrogen treat gas rates of from 500 to 5000 scf/B (89 to 890 m<sup>3</sup>/m<sup>3</sup>).
15. *OK* The process of claim 3 wherein the hydrogenation conditions comprise temperatures of from 150 to 400 °C, hydrogen pressures of from 500 to 3500 psig (3549 to 24234 kPa), liquid hourly space velocities of from 0.1 to 5.0 and hydrogen treat gas rates of from 500 to 5000 scf/B (89 to 890 m<sup>3</sup>/m<sup>3</sup>).

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